Memo

1- Mill flats as per dwg D3176 2- Deburr

Mill Conv

Conventional Milling Machine

January-10-13 11:03:56 AM Item ID: D3176-1 Accept *N900040100* Setup Start **Revision ID:** Item Name: Bushing **Start Date:** 1/10/13 **Start Qty: 12.00** *12* Cust Item ID: Required Date: 1/24/13 Req'd Qty: 12.00 *12* **Customer:** Reference: Run Process Plan: MUS Date: 13-01-10 Tooling: Approvals: Date: QC: ____ Date:__ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Description **Run Hours** Number Code Qty Otv Stamp Draw Nbr **Revision Nbr** D3176 Rev A 100 0.00 Hardinge CNC LATHE SMALL *100* Hardinge 0.00 Memo Hardinge CNC Lathe Small 1-Turn as per Folio FA286 & DWG D31762-Deburr NAZOOA 110 QC2- Inspect parts off machine FAI/FAIB 0.00 *110* 12 13-3-8 QC 0.00 Memo Quality Control 120 0.00 CONVENTIONAL MILLING MACHINE *120*

0.00

DQA: Date: **WORK ORDER NON-CONFORMANCE / UPDATE** NCR: Yes / No QA Closed: Date: DISPOSITION AGAINST DEPARTMENT/PROCESS Work Order: Skid-tube Engineering Rework Crosstube Water Jet Prod. Eng. Coor. Quality Part No. Machining Small Fab Scrap Thermoforming Finishing Rec/Store/Packaging Other Use-as-is NCR No. Work Order Update Large Fab Composite Supplier Description of work order update Initial Action Sign & Root Chief Eng Qtv or Non-conformance Description Date Verification QC Inspector Cause Date Step Doc/Data

Unapproved **FAULT CATEGORY Landing Gear** General Bending Bend Grain Ovalized Pressure/Forced BOM/Route Over/Under tolerance Temperature/Cure Centre Not Concentric to O/S Hardware Cracks Broken/Damaged Inspection Incomplete Weld Part Incorrect Crushed/Crimped. Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs Maintenance Contamination Part Moved Heat Treat Countersink Mislabeled Positioned Wrong Other Inspection Strip in Tube **Cut Too Short** Misread Power Loss/Surge **Drill Holes** Offset Ripples in Bend **Torque Waves in Extrusion** Out of Calibration Drawing Turning Sequence Finish Out of Sequence

Outside Dimensions

Wave/Twist in Tube

Folio

Equip/Tooling
Operator
Material
Setup
Other
Process
Supplier
Training

95511

Page 2

January-10-13	11:03:56 AM	1		9.1	:)					rage 2	
Item ID: Revision ID: Item Name:	D3176-1 Bushing			Accept	*N900	0401	100*	Setup Sta	14.		-
Start Date: Required Date: Reference:	1/10/13 : 1/24/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item I Customer:	ID:			IV.	7 /	
Approvals:	Process Pla	an:	Date:	Tooling: SPC (Y/N):		ate:	-	Run Sta	" \ 	२1* २2*	
Sequence ID/ Work Center II 130 *130* QC Quality Control	D	Operation Description QC2- Inspect parts off ma	achine FAI/FAIB	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Accep Code Qty	t Reject Qty	Reject Number	Insp. Stamp	
*140 *140* QC Quality Control		QC8- Inspect parts - secon	nd check	0.00	B.A 13/03/	11	_12	<u></u>	<u>.</u>	0A5 08 	· · · · · · · · · · · · · · · · · · ·
*150 *150* Packaging Packaging		Identify as per dwg & Sto Memo	ock Location ST63	0.00			12:	X	(-	80 3-3-1	2

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

										QA Closed:	Date	e:
Work Orde	r·				DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part N	 				Rework Scrap		Skid-tube Crosstube Water Jet Engineeri Machining Small Fab Prod. Eng. Coor. Qual					
NCR N	0				Use-as-is Work Order Update] Th	Thermoforming Finishing Rec/Store/Packaging Composite Supplier					
Root				Descri	ption of work order update	Initia	al	Ad	ction	Sign &		
Cause	Date	Step	Qty	•	or Non-conformance	Chief F	Eng	Desc	cription	Date	Verification	QC Inspector
occ/Data quip/Tooling Operator Material Setup Other Process Supplier Fraining Unapproved							S					
"• ·		1				AULT CA	ATEG	SC)RY		<u> </u>		1
Landin	g Gear				General							······································
	Bending Centre No	ot Concei	ntric to (o/s	Bend BOM/Route Broken/Damaged		dwar	re on Incomplete		Ovalized Over/Under Part Incorre) -	Pressure/Forced Temperature/Cure Weld
	Crushed/ Cuffs Heat Trea				Burrs Contamination Countersink	Ма		oris Incomplete, nance led	/Unclear	Part Lost/Mi Part Moved Positioned V		Wrong Stock Pulled
	Inspectio		Tube		Cut Too Short	-	read			Power Loss/	· · ·	Other
	Ripples in	Bend			Drill Holes	Offs	set			7		
	Torque W	/aves in E	xtrusio	۱ 📗	Drawing	Out	t of C	al bration				
	Turning S	equence			Finish	Out	t of S	ecluence				
	Wave/Tw	ist in Tub	oe		Folio	Out	tside	D.mensions				

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January-10-13 11:03:56 AM

Quality Control

D3176-1 Item ID: Accept *N900040100* Setup Start **Revision ID:** Bushing Item Name: Start Date: 1/10/13 **Start Otv:** 12.00 **Cust Item ID:** Required Date: 1/24/13 Req'd Otv: 12.00 **Customer:** Reference: Run Approvals: Process Plan: Date: Tooling: Date: Stop OC: Date: _____ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Description Run Hours Code Qty Qty Number Stamp, 160 QC21- Final Inspection - Work Order Release 0.00 *160* OC Memo 0.00

of Bos.

		DQA:	Date:	
ICR: Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE			

											QA Closed:	Dat	e:
Work Orde	er:			-		DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	-
Part N	- . No.					Rework Scrap Use-as-is Work Order Update							Engineering Quality Other
Root					Descri	ption of work order update	Ī	nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling									,				
Operator	Ш												
Material							Ì						
Setup	Ш												
Other	Ш												
Process	Ш	i											
Supplier	Ц		1										
Training	Щ												
Unapproved									<u>L</u>				
							AUL	T CATE	GCIRY				
Landi					F	General		1		Γ	1	r	,_ ,
		Bending	_		_,_	Bend	-	Grain		_	Ovalized	,	Pressure/Forced
	\vdash	Centre No	ot Concer	ntric to (o/s	BOM/Route	_	Hardwa		<u> </u>	Over/Under	ŀ	Temperature/Cure
	-	Cracks			-	Broken/Damaged	-	1	ion Incomplete	,, , <u> </u>	Part Incorre	•	Weld
	\vdash	Crushed/0	Crimped,		-	Burrs	\vdash	1	ions Incomplete/	/Unclear	Part Lost/M	issing [Wrong Stock Pulled
	\vdash	Cuffs			-	Contamination	-	Mainte		<u> </u>	Part Moved	.,	
	Н	Heat Trea		Tb	<u> </u>	Countersink	_	Mislabe			Positioned V		Out - "
	—	Inspection	•	rube	<u> </u>	Cut Too Short Drill Holes	\vdash	Misread	ג	L	Power Loss/	Surge	Other
		Ripples in		. ـ ـ : ـ ـ : ـ ـ : ـ - :	_	╡	-	Offset	Calibratic -				
		Torque W			' -	Drawing	\vdash	4	Calibration Sequence				
	\vdash	Turning So Wave/Tw	-		-	Finish Folio	\vdash	1	e Dimensions				
		WW MV CIIVV		15.		4.1.4.114.7		I CH LOIDE					

Picklist Print

January-10-13 11:04:00 AM

Work Order ID: 95511

D3176-1

Parent Item Name: Bushing

95511 *D3176-1*

Start Date: 1/10/13

Required Date: 1/24/13

Start Qty: 12.00

Required Qty: 12.00

Comments:

Parent Item:

IPP Rev:B Removed -3

05-11-29 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Primary Item Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R1.000		Purchased	No	The state of the s	100	f	45.5589	0.31	3.915789	- 		
M303R1	೧ ೧೧							**	/スト	3-\$		DAS 13

303 Round Bar 1.00

Location	Loc Qty	Loc Code	
MAT028	45.55891579		
120866	1.4		
121070	6.63031579		
121282	0.9		
121728	3.034		
122386	14.926		
123294	18.6686		
124711	CAS 04 8-89		3.926

												DQA:	Da	te:	
NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORM	ANCE / UPI	DATE					
		·										QA Closed:	Da	te:	
Work Orde	٥r٠					DISPOSITION				AGAINST D	El	PARTMENT	PROCESS		
, work orac	-••					Rework	1		Skid-tube	Crosstube			Water Jet		Engineering
Part N	No.					Scrap			Machining	Small Fab		Pro	d. Eng. Coor.	⊢	Quality
			•			Use-as-is			noforming	Finishing		Rec/Stor	re/Packaging	-	Other
NCR I	No.					Work Order Update]		Large Fab	Composite _			Supplier	L_	
Root	Ì				Descri	ption of work order update		nitial	Act	ion		Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descr	iption		Date	Verificatio	n	QC Inspector
Doc/Data															
Equip/Tooling		,													
Operator															
Material															
Setup															
Other															
Process							1								
Supplier															
Training															
Unapproved															
							AUL	T CATE	GORY						
Landi						General		1		_		1		_	7
		Bending				Bend		Grain		-		Ovalized		<u> </u>	Pressure/Forced
	<u> </u>	Centre No	ot Concer	ntric to (D/S	BOM/Route	<u></u>	Hardwa		ļ.		Over/Under		<u> </u>	Temperature/Cure
		Cracks				Broken/Damaged	<u>_</u>	1 '	on Incomplete	L	_	Part Incorre			Weld
	<u> </u>	Crushed/	Crimped.			Burrs	_	1	ioris Incomplete/l	Jnclear		Part Lost/Mi	issing		Wrong Stock Pulled
	L.	Cuffs				Contamination	_	Mainte				Part Moved			
		Heat Trea	t			Countersink.		Mislabe	led			Positioned V	Vrong	_	7
		Inspection	n Strip in	Tube		Cut Too Short		Misread				Power Loss/	Surge		Other

Offset

Out of Calibration

Out of Secuence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

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DART AEROSPACE LTD	Work Order:	95571
Description: Bushing	Part Number:	D3176-1
Inspection Dwg: D3176 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X	First Article	· ·	Prototype
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Drawing	Tolerance	Actual	Accept	Reject	Method of	Comments
Dimension	Tolerance	Dimension	Accept	Reject	Inspection	Comments
Ø0.990	+/-0.010	77/				
Ø0.472	+0.010/-0.000	.478				
3.716	+/-0.010	3713				
0.130	+/-0.010	-124				
0.277	+/-0.010	. 275				
0.550	+/-0.010	-550				
0.839	+/-0.010	840	//			
0.745	+0.005/-0.000	747				
0.625	+/-0.010	621				
5/8-UNF18-3B	N/A	N/A				
.865	+ ,010	-862				
	Min Max					
Majo 1 D	6163/.6250	-621				
M.O. W.	6333 / 6368	.6345			<u>, , , , , , , , , , , , , , , , , , , </u>	
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	DAS					
	13	\mathcal{O}	OAG OF			

Measured by:

Audited by: 08 04

Date: 3-3-8

Date: 5-3-9

Audited by: 08 04

Date: 5-3-9

Date: N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue	KJ/RF	1
В	06.03.09	Added 5/8-UNF18-3B	KJ/JLM	Cid

